

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

Listing of Claims:

1-101 (Cancelled)

102. (Currently Amended) A purified human Factor XI protein or fragment thereof ~~The protein or fragment of claim 0~~, comprising one of the following mutations at a position relative to the sequence set forth in SEQ ID NO: 15:

- (i) S434A;
- (ii) T475A;
- (iii) S434A, T475A;
- (iv) S434A, T475A, K422A
- (v) S434A, T475A, K437A;
- (vi) S434A, T475A, K486A;
- (vii) S434A, T475A, K505A;
- (viii) S434A, T475A, K509A;
- (ix) S434A, T475A, C482S;
- (x) S434A, T475A, C482S, K437A;
- (xi) S434A, T475A, C482S, R479A;
- (xii) S434A, T475A, C482S, K505A;
- (xiii) S434A, T475A, C482S, D476A;

- (xiv) S434A, T475A, AVC-terminal truncation of A606 and V607 ~~truncation~~; or
- (xv) S434A, T475A, C482S, Y416S.

103. (Cancelled)

104. (New) A purified Factor XI protein or fragment thereof comprising at least one mutation, wherein said mutation is

(a) a mutation of a residue of said protein or fragment that disrupts post-translational N-linked glycosylation when said protein or fragment thereof is recombinantly expressed in an organism,

(b) a mutation that eliminates a free, reactive sulfhydryl group of a cysteine residue present in said protein or fragment thereof, or

(c) a mutation of the NH₂- or COOH-terminal residue of said protein or fragment thereof, wherein said mutation of the NH₂- or COOH-terminal residue of said protein or fragment thereof promotes crystallization of said protein or fragment thereof relative to wild-type Factor XI or a fragment thereof lacking said mutation.

105. (New) The protein or fragment of claim 104, wherein said protein or fragment comprises a human polypeptide sequence.

106. (New) The protein or fragment of claim 104, wherein said protein or fragment thereof comprises a mutation of an asparagine, serine, or threonine residue within an Asn-Xaa-

(Ser/Thr) N-linked glycosylation consensus sequence, wherein Xaa is any amino acid other than proline.

107. (New) The protein or fragment of claim 106 comprising a mutation in said protein or fragment at a position relative to the mature human Factor XI polypeptide sequence set forth in SEQ ID NO: 15, wherein said mutation is selected from:

- (a) S434A;
- (b) T475A; and
- (c) S434A, T475A.

108. (New) The protein or fragment of claim 104 comprising a mutation in said protein or fragment at position C482S relative to the mature human Factor XI polypeptide sequence set forth in SEQ ID NO: 15.

109. (New) The protein or fragment of claim 104, wherein said protein or fragment lacks the C-terminal alanine and valine residues at positions 606 and 607 of the mature human Factor XI polypeptide sequence set forth in SEQ ID NO: 15.